

**POWER-OFF NOISE SUPPRESSION CIRCUIT AND
ASSOCIATED METHODS FOR AN AUDIO AMPLIFIER DEVICE**

Abstract of the Disclosure

An audio amplifier device includes a power supply having an output for providing a supply voltage, a voltage divider connected to the output of the power supply for providing a divided supply voltage, and an
5 audio amplifier that further includes a supply voltage rejection circuit. The audio amplifier has a first input for receiving an input audio signal, a second input for receiving the supply voltage, a third input for receiving a supply voltage rejection signal for the
10 supply voltage rejection circuit, and an output for providing an output audio signal. A power-off noise suppression circuit has a first input for receiving the divided supply voltage and an output for providing the supply voltage rejection signal. The power-off noise
15 suppression circuit sets the supply voltage rejection signal equal to the divided supply voltage during power-off of the power supply so that a rate of decrease of the supply voltage is greater than a rate of decrease of the supply voltage rejection signal for
20 reducing noise in the output audio signal during the power-off.

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